Listing of Claims:

Please amend claim 1, cancel claims 2 and 10, and add new claims 18 and 19.

1. (Currently Presented) A method of differentiating primate embryonic stem cells into neural precursor cells, comprising the steps of:

(a) obtaining a primate embryonic stem cell culture,

(b) propagating the stem cells, wherein embryoid bodies are formed, and

(c) culturing the embryoid bodies in a cell culture medium containing an effective amount of fibroblast growth factor 2 and in the absence of other proliferation/differentiation agents, wherein neural precursor cells are generated and wherein the neural precursor cells form rosette formations.

2. (Cancelled)

3. (Previously Presented) The method of claim 1 further comprising the step of isolating the neural precursors by enzymatic treatment wherein the treatment leads to the preferential detachment of cells in rosette formations

relative to surrounding cells that are not in a rosette formation.

4. (Previously Presented) The method of claim 1 wherein the amount of fibroblast growth factor 2 in the medium of step (c) is between 10 and 20 ng/ml.

5. (Original) The method of claim 1 wherein the embryonic stem cell culture is a human embryonic stem cell culture.

6. (Original) The method of claim 1 wherein the culture of step (c) is at least 72% neural precursor cells.

7. (Original) The method of claim 6 wherein the percentage of neural precursor cells is at least 84%.

8. (Original) The method of claim 3 wherein the isolation procedure results in an enriched population of neural precursor cells, wherein at least 90% of the cells are neural precursor cells.

9. (Original) The method of claim 8 wherein at least 95% of the cells are neural precursor cells.

10. (Cancelled)

11. (Original) The method of claim 1 wherein the embryonic stem cells are propagated on a feeder layer of irradiated mouse embryonic fibroblasts.

12. (Original) The method of claim 1 wherein step (c) comprises pelleting the stem cells, resuspending in cell medium without fibroblast growth factor 2, and culturing, wherein floating embryoid bodies develop.

13. (Previously Presented) The method of claim 1 wherein step (c) comprises culturing the embryoid bodies in a medium comprising insulin, transferrin, progesterone, putrescine, sodium selenite and heparin.

14 - 17 (Cancelled)

18. (New) A method of differentiating primate embryonic stem cells into neural precursor cells, comprising the steps of:

(a) obtaining a primate embryonic stem cell culture,

(b) propagating the stem cells, wherein embryoid bodies are formed, and

(c) culturing the embryoid bodies in a medium consisting essentially of DMEM/F12, insulin, transferrin, progesterone, putrescine, sodium selenite, heparin and an effective amount of fibroblast growth factor 2, wherein neural precursor cells are generated and wherein the neural precursor cells form rosette formations.

19. (New) A method of differentiating primate embryonic stem cells into neural precursor cells, comprising the steps of:

(a) obtaining a primate embryonic stem cell culture,

(b) propagating the stem cells, wherein embryoid bodies are formed, and

(c) culturing the embryoid bodies in a medium comprised of DMEM/F12, insulin, transferrin, progesterone, putrescine, sodium selenite, heparin and an effective amount of fibroblast growth factor 2 and the absence of other proliferation/differentiation agents, wherein neural precursor cells are generated and wherein the neural precursor cells form rosette formations.